



WORKPLACE SAFETY AND HEALTH IN NEVADA

*From The
National Institute for Occupational Safety and Health*



State Profile 2002

*Delivering on the Nation's promise:
Safety and health at work for all people through prevention.*

The National Institute for Occupational Safety and Health

NIOSH is the primary federal agency responsible for conducting research and making recommendations for the prevention of work-related illness and injury. NIOSH is located in the Department of Health and Human Services in the Centers for Disease Control and Prevention. The NIOSH mission is to provide national and world leadership to prevent work-related illness, injury, disability, and death by gathering information, conducting scientific research, and translating the knowledge gained into products and services. As part of its mission, NIOSH supports programs in every state to improve the health and safety of workers. NIOSH has developed this document to highlight recent NIOSH programs important to workers and employers in Nevada.

The Burden of Occupational Illness and Injury in Nevada

- In Nevada, there are approximately 946,000 individuals employed in the workforce.¹
- In 2000, 51 workers died as a result of workplace injuries.²
- The transportation and public utilities industry and the services industry had the highest and equal number of fatalities, followed by retail trade.²
- In 1999, the most recent year for which data are available, the rate of fatal workplace injuries was 6.3 deaths per 100,000 workers—above the national average rate of 4.5 deaths per 100,000 workers.²
- In 2000, there were 65,700 nonfatal workplace injuries and illnesses in Nevada.³

The Cost of Occupational Injury and Illness in Nevada

In 2000, the most recent year for which data are available, a total of \$286.5 million was paid for workers' compensation claims by Nevada private insurers and self-insured employers.⁴ This figure does not include workers who are employed by the federal government and also underestimates the total financial burden for private sector businesses, since only a fraction of health care costs and earnings lost through work injuries and illnesses is covered by workers' compensation. Chronic occupational illnesses like cancer are substantially under-reported in workers' compensation systems because work-relatedness is often difficult to establish.

How NIOSH Prevents Worker Injuries and Diseases in Nevada

Health Hazard Evaluations (HHEs) and Technical Assistance

NIOSH evaluates workplace hazards and recommends solutions when requested by employers, workers, or state or federal agencies. Since 1993, NIOSH has responded to 26 requests for HHEs in Nevada in a variety of industrial settings, including the following example:

Lake Mead, Nevada: Carbon Monoxide (CO) Engineering Controls on Houseboats

In June 2001, NIOSH researchers conducted an evaluation of several engineering control devices that were retrofitted onto gasoline-powered generators on houseboats to reduce the hazard of CO poisonings from the exhaust. This evaluation at Lake Mead, Nevada, was part of a series of studies conducted by NIOSH investigators to document hazardous CO concentrations on houseboats and to evaluate and recommend appropriate engineering controls to reduce the hazard and eliminate CO-related poisonings. The evaluated controls consisted of an interlock, an emissions control device (ECD), and an ECD with an exhaust stack that extended nine feet above the upper deck of the houseboat. Investigators concluded that the performance of the evaluated ECD, with and without the stack, was excellent but suggested conducting some additional testing and evaluation of this device. The interlocking system performed as designed and could help reduce some CO poisonings but had significant limitations preventing its use as a primary control. Based on these results, NIOSH investigators recommend that all houseboats using gasoline-powered generators be retrofitted with engineering controls to reduce the hazard of CO-related poisoning and death to individuals on or near the houseboat.

Fire Fighter Fatality Investigation and Prevention Program

The purpose of the NIOSH Fire Fighter Fatality Investigation and Prevention Program is to determine factors that cause or contribute to fire fighter deaths suffered in the line of duty. Occasionally, serious injuries also are investigated. NIOSH uses data from these investigations to generate reports and a database of case results that guides the development of prevention and intervention activities. The following fire fighter injury investigation was conducted in Nevada:

Nevada: Aluminum Regulator Fire Injures One Fire Fighter

On January 25, 1999, a male fire fighter suffered first- and second-degree burns when an aluminum oxygen regulator caught fire. The victim was inspecting the engine to which he was assigned. Part of the inspection involved removing the oxygen airway supply bag and checking the oxygen pressure in the cylinder. The victim removed the supply bag from the medical compartment and placed its upper half on a shelf and its bottom part against his stomach. The cylinder was placed in the bag so that the regulator was away from the victim when he began to charge the regulator. As the fire fighter opened the post valve, the regulator emitted a ball of fire. The fire quickly spread to the airway supply bag as the victim dropped it and ran into the station bay. While other fire fighters were treating him, the post valve sheared off the cylinder and a second flash of fire was created. NIOSH investigators concluded that, to reduce the risk of similar incidents, fire departments should: use regulators constructed of materials with oxygen compatibility equivalent to brass; ensure that the cylinder is positioned upright with its post valve pointed away from the operator, and opened, then closed, before the regulator is attached to the cylinder; ensure that fire fighters are trained in safe handling procedures for oxygen systems; ensure that oxygen systems are stored, refilled, and maintained in cool and clean areas; and ensure that any components added to regulators do not block their vent holes.

Additional information regarding NIOSH services and activities can be accessed through the NIOSH home page at <http://www.cdc.gov/niosh/homepage.html> or by calling the NIOSH 800-number at 1-800-356-NIOSH (1-800-356-4674).

¹U.S. Department of Labor (DOL), Bureau of Labor Statistics (BLS), Local Area Unemployment Statistics, Current Population Survey, 2000.

²DOL, BLS in cooperation with state and federal agencies, Census of Fatal Occupational Injuries, 1999-2000.

³DOL, BLS in cooperation with participating state agencies, Survey of Occupational Injuries and Illnesses, 2000.

⁴National Academy of Social Insurance, *Workers' Compensation: Benefits, Coverage, and Costs, 2000 New Estimates*, May 2002.